

Claims

**What is claimed is:**

1. A system for enabling distribution of service functionality across network elements in a network comprising:
  - a) a service logic execution engine for enabling service logic to execute on one or more nodes in the network;
  - b) a determination means for determining a preferred distribution scheme wherein the distribution scheme involves placement of nodes; and
  - c) a distribution means for distributing service functionality to nodes in accordance with the distribution scheme.
- 15 2. The system of claim 1 wherein the distribution scheme involves executing where one or more associated physical resources are located.
3. The system of claim 1 wherein the distribution scheme comprises a selection function to determine one or more nodes to be invoked.
- 20 4. The system of claim 3 wherein the selection function comprises executing an algorithm.

5. The system of claim 1 wherein the distribution scheme involves reducing inter-node interactions.

6. The system of claim 1 wherein the 5 distribution scheme involves making efficient use of network resources.

7. The system of claim 1 wherein the distribution scheme involves considering one or more natural couplings of associated service software.

10 8. The system of claim 1 wherein one or more service logic execution engines execute on one or more participating nodes in the network.

9. The system of claim 1 wherein multiple parallel servers are capable of executing a service 15 wherein the throughput is scalable to a desired level.

10. A method for enabling distribution of service functionality across network elements in a network comprising the steps of:

20 a) enabling service logic to execute on one or more nodes in the network;

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b) determining a preferred distribution scheme wherein the distribution scheme involves placement of nodes; and

5 c) distributing service functionality to nodes in accordance with the distribution scheme.

11. The method of claim 10 wherein the distribution scheme involves executing where one or more associated physical resources are located.

10 12. The method of claim 10 wherein the distribution scheme comprises a selection function to determine one or more nodes to be invoked.

13. The method of claim 12 wherein the selection function comprises executing an algorithm.

15 14. The method of claim 10 wherein the distribution scheme involves reducing inter-node interactions.

16. The method of claim 10 wherein the distribution scheme involves making efficient use of network resources.

20 16. The method of claim 10 wherein the distribution scheme involves considering one or more natural couplings of associated service software.

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16. The method of claim 10 wherein one or more service logic execution engines execute on one or more participating nodes in the network.

17. The method of claim 10 wherein multiple parallel servers are capable of executing a service wherein the throughput is scalable to a desired level.

18. A processor readable medium comprising  
processor readable code for enabling distribution of  
10 service functionality across network elements in a  
network comprising:

a) execution code that causes a processor to enabling service logic to execute on one or more nodes in the network;

15           b) determination code that causes the  
processor to determine a preferred distribution  
scheme wherein the distribution scheme involves  
placement of nodes; and

c) distribution code that causes the processor  
20 to distribute service functionality to nodes in  
accordance with the distribution scheme.

19. The processor readable medium of claim 18  
wherein the distribution scheme involves executing

where one or more associated physical resources are located.

20. The processor readable medium of claim 18 wherein the distribution scheme comprises a selection 5 function to determine one or more nodes to be invoked.

21. The processor readable medium of claim 20 wherein the selection function comprises executing an algorithm.

10 22. The processor readable medium of claim 18 wherein the distribution scheme involves reducing inter-node interactions.

23. The processor readable medium of claim 18 wherein the distribution scheme involves making 15 efficient use of network resources.

24. The processor readable medium of claim 18 wherein the distribution scheme involves considering one or more natural couplings of associated service software.

20 25. The processor readable medium of claim 18 wherein one or more service logic execution engines execute on one or more participating nodes in the network.

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26. The processor readable medium of claim 18 wherein multiple parallel servers are capable of executing a service wherein the throughput is scalable to a desired level.